St Louis Aug 14 '13
Com P.C. Nov. 29
14 Aug. 7. 80

Independence, Mo
Aug. 6th 106.

George Englemann:

Dear Sir: I beg to ask a little information from you on the subject of Botany. I am a young beginner and have been collecting but two years, therefore I do not know much about it. What plants I collected last Summer I gave away last Winter. I have collected over eleven hundred specimens and two hundred and sixty species of plants this year. While out collecting last Spring I found a wild verbena that I cannot find in the books anywhere. It is No. 1. V. Aubletia in the lot I send. Some two or three weeks ago I found another vervain growing along the country roads that I

V. stricta – urticifolia

am unable to classify with either Gray, Wood, or Chapman. It grows very tall standing above the V. paniculata a foot or more. has a square stem opposite leaves and long slender spikes with small blue flowers Spikes from 6" to 12" long flowers are soon caducous while V. paniculata has flowers large and long persistent. stem not very hairy slender with leaves far apart. Leaves are very green not musty like the V. pan. It is No. 2. in the lot I send. I also send V. Paniculata to compare with the new one. It is V. stricta number 3. When I found No. 1. I called it Verbena Missouriensis. I enclose card for answering. I would very much like to know the name of these plants.

Yours truly
Frank Bush.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Jan 20 1881
ans O C

Independence, Mo.
Jan. 18th

Dr. Geo. Engelmann:

Dear Sir: Your card received some time and have been intending to write you for several days. I found out after I wrote you that the Ver. No. 1. I sent was Adbletica, and No. 2 was a hybrid. No. 3. is Striela. I commenced studying Botany three years ago and I am very much interested in it. Would you advise me to continue or stop the study of plants.? Last fall I bought me a small microscope to further my investigations in Botany, which cost me fifteen dollars. In power it ranges from 15 to 290 diameters. Is this instrument suitable for my purpose? I collected over four hundred species of plants here last Summer which I now have in cases.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

A friend of mine in the South part of the state sent me several cases of dried plants that he could not classify. I have classed them all but three which I enclose to you in a box. I cannot well classify dried plants and thought you might be familiar with them. No. 1. is a Sedge-like plant not growing in wet places as it would seem. No. 2. Grows in rotten leaves and logs where there is plenty of shade. No. 3. Very much resembles a pink and grows in wood openings. Blooms about June or July. I would like to know what these plants are as I have kept a specimen of each. I fear I have intruded myself upon you and have taken up much of your valuable time.

Hoping to hear from you soon

I remain

Yours truly

Frank Bush.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd Davenport Sept 11
Ans Oct 18

Independence, Mo.
Sept. 4th 1882

Dr. Geo. Engelmann:

Again I have to appeal to your better judgement for help. I send you to-day a package of plants which I am doubtful of. You will see that they are better prepared than those I sent you last.

No. 1. I think is Clematis Pitcheri. but was not quite certain about it.

No. 2. Is some Scirpus, validus probably S. riparius, as it is quite different from S. validus which I have here.

No. 3. Oxybaphus albidus — not O. nyctaginens.

No. 4. Specularia leptocarpa, Gray.

No. 5. Looks as though it might be a var. of Plantago Virginica.

No. 6. Psoralea Lanceolata — looks like P. Onobrychis, but is less tall, and is prostrate.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

No. 7. I collected last year and is in very poor condition, but I have seen none this year. May be Chenopodium mur.
No. 8. Physalis lanceolata, Michx., var hirta.
No. 9. Physalis — perhaps var. of P. Virginiana, but I send description.
No. 10. I think is Echinodorus, but I got this while away from home and was unprepared to keep it, hence its bad appearance: some of the flowers had ♀ and some had ♀ stamens. Those that I left died before maturing the fruit so I could not determine.
No. 11. Appears to be Juncus megacephalus.
No. 12. Typha angustifolia — in all the specimens examined the sterile portion was separated from the fertile part of spike.
No. 13. Cheilanthes lanuginosa.
No. 14. Salvia lanceolata — annual or sub-biennial: corolla included, hairy at tip.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Do you think I have improved
any in pressing and arranging my
plants. 2

I enclose stamp for reply.

Yours very truly
Frank Bush.

9-5-82

P.S. By mistake I sent you one of
my Lespedezas No. 6. instead of Psoralea
by the confusion of labels. I will send
Psoralea next time.

F. B.

New Physalis, to Gray's Manual

a foot or so high, at length widely spreading: leaves ovate, blunt, unequal at base, laciniately toothed or sometimes nearly entire; corolla an inch or less in diameter, bright yellow with a purplish brown eye: pedicels (an inch or more long) equalling or longer than the fruiting calyx (an inch long) calyx: calyx lobes triangular: fruiting calyx globose-~~ovate~~, with a depressed base, sharply 10-angled, the 5 principal angles very sharply keeled.- Differs from P. Virginiana, Mill., in the larger blunt leaves, longer petioles, round fruit, larger and brighter corolla, smoother and thinner leaves, absence of that viscid pubescence, and more viscid berry.- Rocky hills and very dry points, around Independence.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Not more than 30 plants known here.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec- Febr 9
Ans Feb 10

Independence, Mo.
Feb. 8th 05.

Dr. Engelmann:

Dear Sir: Your card received some days ago and I was fully satisfied with the answer you gave. I would have paid the full postage had I known that there would have been any. But in my letter I asked one or two questions which you did not answer.
I now send you some stamps for to repay you and stamp me a letter. I send you another berry to classify for me. No. 4. is a curious growth found on the Red Cedar Juniperus Virginiand. Some say it is a fungus growth and I did think it was the berry, but do

not think so now. Write me all you can about this as I am very much interested in it.
No. 3. grows in watery grounds.
No. 2. grows on rocky hills.
No. 1. grows in marshes.
I have duplicates of all these and would like to know what they are. Hoping to hear from you soon I remain

Yours truly
Frank Bush.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Thank 9th
Ans — 11

Independence, Mo.
Mar. 8th 05.

Dr. Geo. Engelmann:

Your letter was received some days ago and noted. I found that your analysis of the plants was correct. I thought I told you that I was much interested in Botany. Those plants I sent you I did not press at all. I would like to ask you a few questions.

1st. Would it be best to press plants in a book or not.

2nd How many plants would you put in a book of 500 pages while pressing.

3rd Could I use a 20 lb weight at first and then use a lighter one the succeeding day.

Or would it be better to use

the same weight throughout.
5th Would one week be long enough
to press ordinary plants.
6th Would the conifers need press-
ing the same as others.
7th Can cones be fixed to keep
as other specimens.
8th Is there any work on Botany
of the western states that I can
get as I expect to go to Arkansas
next May.
9th Will specimens like those I
sent you do to keep provided they
are well pressed.
I enclose you a few specimens of a
tree that I found here that no
one knows the name of. I think
it is Salisburia Adiantifolia
is it or not? I enclose stamp
for reply.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Yours truly
Frank Bush

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec May 30
Ans " "

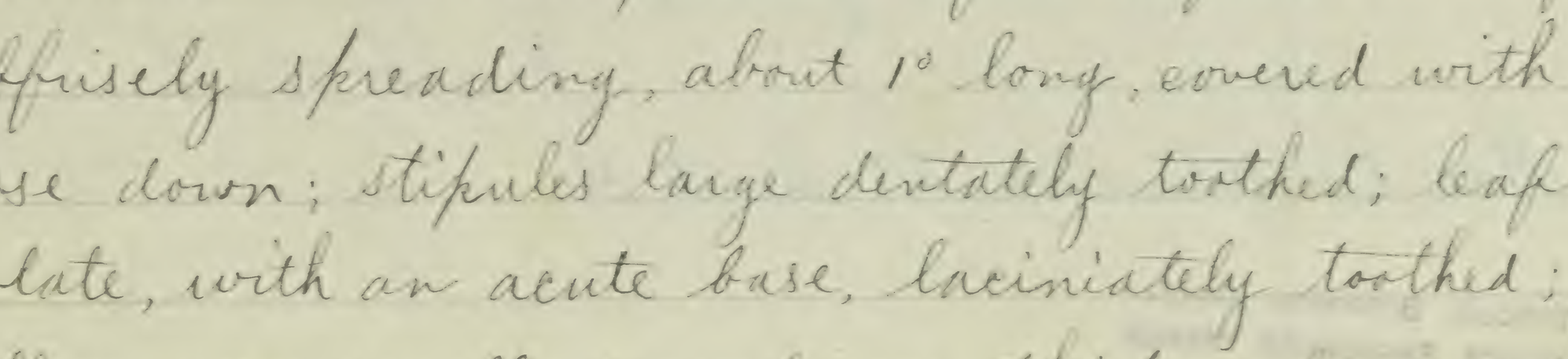
Independence, Mo.
May 28th '83

Dr. Geo. Engelmann:

Dear Sir: I enclose you a few leaves of a Potentilla that grows very abundantly here in low sandy bottoms along the Missouri River. I trust you will pardon me for sending such imperfect specimens as these, but I am so situated this season that I cannot well collect better ones, and I feel sure that with your extensive acquaintance with western plants that you will readily recognize this. It is nearly always found in company with P. paradoxa, and the two begin to bloom about the tenth of May. I have studied it for some time but cannot make anything out of it. I have also studied a Nasturtium that grows in the same locality as the above which does not answer to anything in Gray's Manual. I cannot laying hand on any just now or I would enclose some for examination. I give you as good a description as I can can from notes made on the plant in the field.

Potentilla — Leaves palmate of 5 leaflets (3 to 9 foliate.); diffusely spreading, about 1° long, covered with a fine close down; stipules large dentately toothed; leaflets lanceolate, with an acute base, laciniately toothed; flowers yellow, very small, scarcely one-third as long as the sepals; bracts longer than the sepals, often trun-cate.

(over)



Low sandy bottoms along the Missouri. Differs from P. Norvegica in its smoothness, prostrate growth, number of leaflets, size of flowers, and place of growth with earlier flowers. P. Nor. is here a tall coarse hairy plants that blooms in July.

Nasturtium ~~palustre~~ Biennial or perennial plant with a large cylindrical pungent root. Petals very small never much larger than the sepals, of a purplish, greenish or yellowish color. Pods oblong, longer (4"-6") than the ~~pedec~~ short (2"-4") pedicels. Stem simple, or sparingly branched, tall (1°-3°). Leaves (2'-8') long, pinnately lobed with about 13 (9-19) lobes, the three upper confluent. ~~and the~~. Style short. Low sandy bottoms along the Missouri River. May to Sept.

Differs from N. obtusum, for that is a smaller pant with finer leaves, and yellow flowerss. And also from N. sessiliflorum, as that has the flowers sessile.

I shall await ayour answer with interest a I am desirious of knowing what these plants may be.

Very respectfully

Frank Bush.

To Dr. Geo. Engelmann, St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Dec 31
Ans — —

Independence, Mo.
Dec. 29th '83

Dr. Geo. Engelmann:
Dear Sir;

Yours of the 9th inst received and redd with interest. I feel satisfied with all the names you sent, with the exception of the Carnus and Physalis. Of the first I will say that it is different from the ordinary form of C. sericea, which is a low shrub here, with downy leaves and twigs. The Physalis is something like P. pubescens, but on examination does not resemble it much; it has been collected here by Dr. E.M. Fry, who first called my attention to it, and this season by Cameron Mann of Grace Church Kansas City, who says it is not

(over)

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

P. pubescens, at least not the pri-
mary form. He is a much closer
observer than I am, and I think
myself that it is a new species, or
else a marked variety of P. pubescens.
Now I do not wish to differ in any
way from you in regard to this mat-
ter, and I hope you will pardon me
if I continue to investigate the plant.
Rev. Mr. Mann made copious notes upon
the plant, one of which was the rank
Tomato plant odor attached to it,
which I never observed in the pubes-
cens. I will send you complete spec-
imens of it next year, together with
some living plants. It will probably
prove to be P. pubescens.
But this is not what I first intend-
ed to write about, and so will
now mention it.
Do you think it would right
and proper for me to prepare a

(over)

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

list of the plants of our State?
Am I competent to undertake the
responsibility of such a work?
Some time ago I conceived the idea
of publishing a list of our State
Flora, and wrote the following
persons who urged me to undertake
the work, and agreed to assist me.
Miss Mary Mundtfelt, Geo. H. Letterman
Dr. Gustave Egeling and Sam. Mann.
I can furnish about 900 species myself
and think the others would contribute
600 more, which would make
a decent showing for our Flora.
I would have you advise me in
this matter.

Very respectfully
Frank Bush.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Nov 2
An — 8

Independence, Mo.
Oct. 31st.

Dr. Geo. Engelmann:

Sir: Your letter received some days ago, but I did not answer until now, because I have been looking over the country per request. I have seen several specimens of Quercus prinoides, but none that I thought you would desire. All the oaks, with the exception of Burr oak and white oak, have fruited but little here, and I found none that I could say were in good fruit to send you. Would next fall suit you? If it will I shall be happy to serve you.

But as regards the plants I sent you there were difficulties that I could not overcome. In No. 2. I only saw one bunch and they did not resemble S. validus at all. I referred them to

S. riparius, because they agreed with that better than any other. I got No. 3. out of Pac. R.R. ref. and do not know O. albidus at all. No. 9. differs from the P. Virginiana we have here. No. 13. is not in Gray and no wonder that I did not get it; it looked more like b. lanuginosus than any other, but did not answer to it. I send you to day a few more that I am afraid that are not correctly named. I am always in doubt whenever I find a plant as to wheter or not it is in the manual. Even after I place it, it is with doubt as to its character.

No. 1. I have collected as Solidago tenuifolia, L., but I am pretty sure it is not that species: nor does it seem to be any species of Solidago. It is abundant on prairies here. No. 2. appears to be Potamogeton hybridus, Mx., very common here. No. 3. I take for Solidago laneeolata, L. No. 4. is not known to me at

all: perhaps not in the manual.
No. 5. I cannot place among the Liatris in Gray. No. 6. I take this for Scutellaria parvula, Mx., but I have one in my collection that is marked S. Wrightiana, Gray., from some one in Kansas. is there any relation between these two? No. 7. Acerates longifolia, L. No. 8. Montelia tamariscina, Gray. No. 9. Phaseolus helvolus, L. the leaves are sometimes lobed but the root is tuberous clustered. No. 10. Andropogon Virginicus, L.
These specimens are not all good, but I did not collect to exchange.
Do you think that my specimens are good enough to exchange with botanists, that amateur botanists?
An early reply is solicited.

Yours very truly
Frank Bush.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN